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1 **IN THE CLAIMS:**

2
3 Claim Listing:

4
5 1. (Previously Presented) A method of using Si-Ge-C in selective etch
6 applications, comprising:
7 growing one or more layers on a single crystal silicon substrate, at least one of
8 which is a Si-Ge-C layer, wherein the carbon of the Si-Ge-C layer is an amount from 1
9 to 10 atomic percent and sufficient to exhibit etch selectivity with respect to the single
10 crystal silicon substrate and/or one or more of the layers adjacent the Si-Ge-C layer;
11 and
12 etching with a liquid etchant, the Si-Ge-C layer and the single crystal silicon
13 substrate and/or one or more of the layers adjacent the Si-Ge-C layer.

14
15 Claims 2-20 (Canceled).

16
17 Claims 21-24 (Never Entered).

18
19 Claim 25 (Canceled).

20
21 Claim 26-44 (Never Entered).

22
23 Claim 45 (Canceled).

24
25 Claim 46 (Never Entered)

26
27 Claim 47-48 (Canceled).

28 49. (Previously Presented) The method of claim 1, wherein the Si-Ge-C
29 layer etches slower than the one or more adjacent layers.
30

1 50. (Previously Presented) The method of claim 1, wherein the Si-Ge-C
2 layer etches slower than the single crystal silicon substrate.

3
4 51. (Previously Presented) The method of claim 1, wherein the Si-Ge-C
5 layer etches faster than the one or more adjacent layers.

6
7 52. (Previously Presented) The method of claim 1, wherein the Si-Ge-C
8 layer etches faster than the single crystal silicon substrate.

9
10 53. (Previously Presented) The method of claim 1, wherein the etching
11 includes applying an etchant selected from the group of KOH and HNA.

12
13 54. (Previously Presented) A method of using Si-Ge-C in selective etch
14 applications in conjunction with a single crystal substrate, comprising:
15 growing one or more epitaxial layers sequentially, starting at the single crystal
16 substrate surface, wherein at least one of the epitaxial layers comprises Si-Ge-C,
17 wherein the carbon of the Si-Ge-C layer is from 1 to 5 atomic percent; and
18 etching with a liquid etchant, the Si-Ge-C layer and the single crystal substrate
19 and/or one or more of the epitaxial layers adjacent the Si-Ge-C layer.

20
21 55. (Previously Presented) The method of claim 54, wherein the Si-Ge-C
22 layer etches slower than the one or more adjacent epitaxial layers.

23
24 56. (Previously Presented) The method of claim 54, wherein the Si-Ge-C
25 layer etches slower than the single crystal substrate.

26
27 57. (Previously Presented) The method of claim 54, wherein the Si-Ge-C
28 layer etches faster than the one or more adjacent epitaxial layers.

29
30 58. (Previously Presented) The method of claim 54, wherein the Si-Ge-C
layer etches faster than the single crystal substrate.

1
2 59. (Previously Presented) The method of claim 54, 55, 56, 57, or 58,
3 wherein the single crystal substrate is a material selected from the group of silicon,
4 silicon-germanium, and germanium.

5
6 60. (Previously Presented) The method of claim 54, wherein the etching
7 includes applying an etchant selected from the group of KOH and HNA.

8
9 61. (Previously Presented) A method of using Si-Ge-C in selective etch
10 applications in conjunction with a substrate, comprising:
11 growing one or more layers sequentially, starting at the substrate, wherein at
12 least one of the layers comprises Si-Ge-C, wherein the carbon of the Si-Ge-C layer is
13 from 1 to 10 atomic percent; and
14 etching with a liquid etchant, the Si-Ge-C layer and one or more layers adjacent
15 to the Si-Ge-C layer and/or the substrate.

16
17 62. (Previously Presented) The method of claim 61, wherein the Si-Ge-C
18 layer etches slower than the one or more adjacent layers.

19
20 63. (Previously Presented) The method of claim 61, wherein the Si-Ge-C
21 layer etches slower than the substrate.

22
23 64. (Previously Presented) The method of claim 61, wherein the Si-Ge-C
24 layer etches faster than the one or more adjacent layers.

25
26 65. (Previously Presented) The method of claim 61, wherein the Si-Ge-C
27 layer etches faster than the substrate.

28
29 66. (Previously Presented) The method of claim 61, 62, 63, 64, or 65,
30 wherein the substrate is a material selected from the group of silicon, silicon-
germanium, and germanium.

1
2 67. (Previously Presented) The method of claim 61, wherein the etching
3 includes applying an etchant selected from the group of KOH and HNA.

4
5 68. (Presently Presented) A method of using Si-Ge-C in selective etch
6 applications, comprising:

7 growing one or more layers on a single crystal silicon substrate, at least one of
8 which is a Si-Ge-C layer, wherein the carbon of the Si-Ge-C layer is in an amount from
9 1 to 10 atomic percent and sufficient to exhibit etch selectivity with respect to the single
10 crystal silicon substrate and/or one or more of the layers adjacent the Si-Ge-C layer;
11 and (Presently Presented)

12 etching with a liquid etchant, the Si-Ge-C layer and the single crystal silicon
13 substrate and/or one or more of the layers adjacent the Si-Ge-C layer wherein the Si-
14 Ge-C layer etches slower than the one or more adjacent layers.

15
16 69. (Presently Presented) A method of using Si-Ge-C in selective etch
17 applications, comprising:

18 growing one or more layers on a single crystal silicon substrate, at least one of
19 which is a Si-Ge-C layer, wherein the carbon of the Si-Ge-C layer is in an amount from
20 1 to 10 atomic percent and sufficient to exhibit etch selectivity with respect to the single
21 crystal silicon substrate and/or one or more of the layers adjacent the Si-Ge-C layer;
22 and

23 etching with a liquid etchant, the Si-Ge-C layer and the single crystal silicon
24 substrate and/or one or more of the layers adjacent the Si-Ge-C layer wherein the Si-
25 Ge-C layer etches faster than the one or more adjacent layers.

26
27 70. (Presently Presented) A method of using Si-Ge-C in selective etch
28 applications in conjunction with a single crystal substrate, comprising:

29 growing one or more epitaxial layers sequentially, starting at the single crystal
30 substrate surface, wherein at least one of the epitaxial layers comprises Si-Ge-C,
wherein the carbon of the Si-Ge-C layer is up to 5 atomic percent; and

1 etching with a liquid etchant, the Si-Ge-C layer and the single crystal substrate
2 and/or one or more of the epitaxial layers adjacent the Si-Ge-C layer wherein the Si-Ge-
3 C layer etches slower than the one or more adjacent epitaxial layers.

4
5 71. (Presently Presented) A method of using Si-Ge-C in selective etch
6 applications in conjunction with a single crystal substrate, comprising:

7 growing one or more epitaxial layers sequentially, starting at the single crystal
8 substrate surface, wherein at least one of the epitaxial layers comprises Si-Ge-C,
9 wherein the carbon of the Si-Ge-C layer is up to 5 atomic percent; and

10 etching with a liquid etchant, the Si-Ge-C layer and the single crystal substrate
11 and/or one or more of the epitaxial layers adjacent the Si-Ge-C layer wherein the Si-Ge-
12 C layer etches faster than the one or more adjacent epitaxial layers.

13
14 72. (Presently Presented) A method of using Si-Ge-C in selective etch
15 applications in conjunction with a substrate, comprising:

16 growing one or more layers sequentially, starting at the substrate, wherein at
17 least one of the layers comprises Si-Ge-C, wherein the carbon of the Si-Ge-C layer is
18 up to 10 atomic percent; and

19 etching with a liquid etchant, the Si-Ge-C layer and one or more layers adjacent
20 to the Si-Ge-C layer and/or the substrate wherein the Si-Ge-C layer etches slower than
21 the one or more adjacent layers.

22
23 73. (Presently Presented) A method of using Si-Ge-C in selective etch
24 applications in conjunction with a substrate, comprising:

25 growing one or more layers sequentially, starting at the substrate, wherein at
26 least one of the layers comprises Si-Ge-C, wherein the carbon of the Si-Ge-C layer is
27 up to 10 atomic percent; and

28 etching with a liquid etchant, the Si-Ge-C layer and one or more layers adjacent
29 to the Si-Ge-C layer and/or the substrate wherein the Si-Ge-C layer etches faster than
30 the one or more adjacent layers.